



# UNITED STATES PATENT AND TRADEMARK OFFICE

*ccu*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/525,628

02/25/2005

Eudes Dantas

37862

9640

116 7590 04/05/2007  
PEARNE & GORDON LLP  
1801 EAST 9TH STREET  
SUITE 1200  
CLEVELAND, OH 44114-3108

EXAMINER

ZIMMERMAN, JOSHUA D

ART UNIT

PAPER NUMBER

2854

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/05/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,628	<b>Applicant(s)</b> DANTAS, EUDES	
	<b>Examiner</b> Joshua D. Zimmerman	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 1/25/07 has been entered.

### ***Claim Objections***

2. Claim 24 is objected to because of the following informalities: Line 3 appears to have a spelling error. "vary" should be "varies."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart (US 6,063,546) in view of Bratt et al. (US 4,229,520).

Regarding claim 17, Gelbart teaches "a process for curing photopolymer to form a photopolymer plate (title, item 10) having a plate thickness, a top side and a bottom side, a base relief on said top side of the plate having a base relief thickness, and a printing relief on said top side of the plate having a printing relief thickness, said base relief thickness and said printing relief thickness each extending within said plate thickness (see Figure 1), comprising the steps of:

forming said plate, base relief and printing relief by exposing the photopolymer to radiation from only" one "side of said plate (column 2, lines 41-43), and

modulating the radiation applied to said photopolymer to control the thicknesses of said base relief and said printing relief (column 4, lines 14-16)."

Gelbart fails to teach that the exposing is done from the bottom side of the plate. Bratt et al. teaches a method of forming a relief pattern wherein the relief is imagewise exposed either from the top surface or the bottom surface (column 2 lines 60-67 and column 10, line 66-column 11, line 16) in order to create the relief. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the method of Gelbart by exposing from the bottom surface in order to form the relief because doing so is an art-recognized suitable method for forming the relief.

Regarding claim 18, Gelbart further teaches "wherein the step of exposing said photopolymer to radiation includes simultaneously forming said base relief and said printing relief (column 8, lines 1-2. When the exposure is done all at once, the base relief and printing relief are formed simultaneously)."

Regarding claim 19, Gelbart further teaches "wherein the step of modulating the radiation includes [positioning a radiation modulation device between a source of the radiation and said photopolymer (figure 5, item 106) and] applying first and second levels or intensities of radiation to said photopolymer (figure 5, item 108), said first level or intensity of radiation curing the printing relief and being greater than said second level or intensity of radiation curing said base relief (when the radiation is modulated and the photopolymer is exposed from the bottom, the more intense radiation will continue through the photopolymer for a longer distance than the less intense, therefore the printing relief will be cured by the more intense radiation, and the base relief will be cured by the less intense radiation), said first and second radiation levels or intensities being determined by a digital device or an analogical film device (item 120), said modulation device pre-establishing one or more transparent or white areas for determining said first level or intensity of radiation and one or more areas with a percentile or half tone of gray for determining said second level or intensity of radiation (column 4, lines 26-44)."

Regarding claim 20, Gelbart further teaches "wherein the radiation exposure time for curing the printed relief and the radiation exposure time for curing the base relief are equal (column 8, lines 1-2)."

Regarding claim 21, Gelbart teaches "a stereographic process (title) wherein a photopolymer having a substantial thickness, a top face and a bottom face (item 10), is cured by emission of radiation through" one "face only (column 2, lines 41-43), said radiation being modulated by a radiation modulation device

Art Unit: 2854

(column 4, lines 14-16), the radiation applied and regulated through said radiation modulating device being configured to provide different and simultaneous levels of radiation according to a predetermined pattern (column 4, lines 14-16 and 26-31), said levels of radiation varying according to a percentile of gray defined for the radiation modulation device (column 4, lines 26-44), the process comprising the steps of:

defining gray halftone areas in the radiation modulation device (column 7, lines 42-44);

defining transparent areas in the radiation modulation device (column 7, lines 42-44); and

radiating said photopolymer plate through said radiation modulation device having said gray halftone areas and transparent areas to simultaneously form a relief base at said bottom surface and a printing relief at said top surface (column 7, lines 65-66)."

Gelbart fails to teach that the exposing is done from the bottom side of the plate. Bratt et al. teaches a method of forming a relief pattern wherein the relief is imagewise exposed either from the top surface or the bottom surface (column 2 lines 60-67 and column 10, line 66-column 11, line 16) in order to create the relief. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the method of Gelbart by exposing from the bottom surface in order to form the relief because doing so is an art-recognized suitable method for forming the relief.

Regarding the last limitation, when the radiation is modulated in accordance with Gelbart and the photopolymer is exposed from the bottom, the more intense radiation will continue through the photopolymer for a longer distance than the less intense, therefore the printing relief will be cured and created by the more intense radiation, and the base relief will be cured and created by the less intense radiation.

Regarding claim 22, Gelbart further teaches "wherein said photopolymer is a photopolymer plate (abstract)."

Regarding claim 23, Gelbart further teaches "wherein said photopolymer is a liquid photopolymer placed in a suitable receptacle (column 6, lines 12-13, and item 16)" and Bratt et al. further teach that "said receptacle having a transparent bottom (column 10, lines 34-37)."

Regarding claim 24, Gelbart further teaches "wherein the radiation level determined by said transparent areas of the radiation modulation device vary from the border of the transparent areas to a desirable border of the gray halftone areas in order to form an angular wall between said relief base and said printing relief thereby eliminating both the dot gain and dot droop on the resultant plate (see figure 2)."

Art Unit: 2854

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman  
Examiner  
Art Unit 2854

jdz

  
JUDY NGUYEN  
SUPERVISORY PATENT EXAMINER